

AMENDMENTS TO THE CLAIMS

1. – 20. (Cancelled).

21. (Currently Amended) ~~[[Apparatus]]~~ An apparatus for checking a crankpin, orbitally rotating about a geometrical axis, in the course of the machining in a numerical control grinding machine including a worktable, defining said geometrical axis, and a grinding-wheel slide carrying a grinding-wheel, with

a Vee-shaped reference device for cooperating with the crankpin to be checked,

a measuring device movable with the Vee-shaped reference device,

a support device for supporting the Vee-shaped reference device and the measuring device, the support device having

a support element fixed to the grinding-wheel slide,

a first coupling element coupled to the support element so as to rotate about an axis of rotation parallel to said geometrical axis,

a second coupling element carrying the Vee-shaped reference device and coupled to the first coupling element so as to rotate with respect to it about a second axis of rotation parallel to said geometrical axis,

a control device for controlling automatic displacements of the apparatus from a rest position to a checking condition, and vice versa, and

a guiding mechanism, associated with the Vee-shaped reference device for guiding the arrangement of the latter on the crankpin towards said checking condition of the apparatus, and including a limiting device with

an elongate rigid element,

a substantially tubular element, coupled to the first coupling element, that bears and guides the elongate rigid element ~~[[arranged]]~~ along a direction substantially parallel to the first coupling element and

~~[[adapted to cooperate with]]~~ abutment elements connected to the grinding-wheel slide and the second coupling element,

the ~~[[limiting device including at least one pair of mechanical abutting surfaces]]~~ elongate rigid element is adapted to engage with ~~[[each other]]~~ the abutment elements and limit movements of the Vee-shaped reference device during said automatic displacements towards the checking condition.

22. (Currently Amended) ~~[[Apparatus]]~~ The apparatus according to claim 21, wherein the Vee-shaped reference device is adapted for maintaining contact with the crankpin to be checked substantially owing to the forces of gravity.

23. (New) The apparatus according to claim 22, including a helical torsion spring arranged between said support element and said first coupling element, adapted to apply to the reference device a pulling force, opposed to forces of gravity, that dynamically varies during the displacements of the apparatus, the helical torsion spring being arranged along a direction substantially parallel to said geometrical axis.